

## ABSTRACT

This invention relates to signal processing in telecommunications, particularly but not exclusively for use in wireless TDMA systems. In particular, the invention concerns methods for use in communication systems making use of pilot symbols. The invention provides a method of placing pilot symbols in a data stream for telecommunication systems, wherein the pilot symbols are spaced in time using a range of different intervals between symbols. The intervals between the pilot symbols are substantially fractal in nature, the distribution of pilot symbols involving repetitions of irregular groupings of pilot symbols in the data stream. Preferably, the irregular groupings of pilot symbols are irregularly spaced in the data stream. The invention also provides a method and means for acquiring the time and frequency offset of a packet of data by using pilot symbols distributed within the packet as defined above.